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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,707	07/08/2005	Carsten Ball	1454.1619	9821

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STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER
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MANDADI, YESHOROCHAN K

ART UNIT	PAPER NUMBER
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2609

MAIL DATE	DELIVERY MODE
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08/29/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/541,707

Applicant(s)

BALL ET AL.

Examiner

Yeshorohan K. Mandadi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 07/08/2005.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

***Claim Objections***

1. **Claim 9** is objected to because of the following informalities:

Correct the spelling of pre-specified.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 6 – 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bedekar et al. (6,603,753)** in view of **Sebire (US 7,145,896)**.

Regarding **claim 6**, Bedekar teaches a method for allocating radio technical resources for data transmission in a radio communication network, comprising:

allocating resources to a subscriber by jointly considering allocation conditions at first and second interfaces, the first interface being between a subscriber station (101) and a first network node ( $x_{v1}$ ) and **[Bedekar: Figure 1]**

the second interface being between the second network node and another subscriber station, the resources being allocated by: **[Bedekar: Figure1; Col 3, 33 – 35]**

considering a data rate and transmission characteristics requested by the subscriber at the first interface, **[Bedekar: Col 1, 49 – 53]**

determining a value to the subscriber, the value to the subscriber being defined as the quotient from an actual data rate and the data rate requested by the subscriber; **[Bedekar: Col 4, 63 – 65]**

determining a value to all subscribers, the value to all subscribers being defined as the minimum of the quotients for all subscribers, from the actual data rate and the data rate requested by each subscriber; and **[Bedekar: Col 4, 34 – 37]**

maximizing the value to all subscribers using an optimization process. **[Bedekar: Col 5, 19 – 21]**

However, Bedekar does not teach that the second interface is between the first network node and a second network node.

In related prior art, Sebire specifically discloses that the second interface can be from the first network node (102a) to a second network node (103).

**[Sebire: Figure 1; Col 7, 17 – 18]**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Bedekar to include that the second interface is between the first network node and the second network node in order to provide a gateway for data transfer.

Regarding claim 7, as applied to claim 6, the combination above further discloses wherein

the first network node (101) is a network-side radio station, **[Bedekar: Figure 1]**

the subscriber station is a mobile station ( $x_{v1}$ ), **[Bedekar: Figure 1]**

the first interface is a radio interface between the mobile station and the first network node, **[Bedekar: Col 1, 51 – 53]**

However, Bedekar does not teach that the subscriber, for transmission over the first interface, is allocated one of a plurality of coding schemes and one or more packet data channels, and the subscriber, for transmission over the second interface, is allocated one or more time slots, based on a relationship between the number of time slots allocated at the second interface and the coding scheme allocated at the first interface.

In related prior art, Sebire specifically discloses that the subscriber, for transmission over the first interface, is allocated one of a plurality of coding

schemes and one or more packet data channels, and **[Figure 5; Sebire: Col 7, 51 – 52; Col 8, 61 – 62]** and

that the subscriber, for transmission over the second interface, is allocated one or more time slots, based on a relationship between the number of time slots allocated at the second interface and the coding scheme allocated at the first interface. **[Sebire: Col 1, 54 – 57]**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Bedekar to include that the interface is allocated a plurality of coding schemes and one or more packet data channels and that the second interface is allocated one or more time slots as taught by Sebire in order to provide better throughput for data.

Regarding **claim 8**, as applied to claim 7, Bedekar does not teach that the number of data packet channels allocated to the subscriber is less than or equal to the number of packet data channels on which the subscriber station can simultaneously transmit or receive.

However, Sebire specifically teaches that the number of data packet channels allocated to the subscriber is less than or equal to the number of packet data channels on which the subscriber station can simultaneously transmit or receive. **[Sebire: Col 4, 43 – 46]**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Bedekar to include the allocated packet data channels are less than or equal to the number of packet data

channels on which the subscriber station can simultaneously transmit or receive as taught by Sebire in order to prevent packet loss.

Regarding claim 9, as applied to claim 6, Bedekar further discloses wherein at least a portion of the subscribers each have a minimum data rate pre-specified which is not to be undershot for data transmission, and **[Bedekar: Col 4, 32 – 34]**

resources are allocated such that the subscribers are each provided with at least their minimum data rate. **[Bedekar: Col 4, 34 – 37]**

5. **Claims 10 – 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bedekar (US 6,603,753)** and **Sebire (US 7,145,896)**, and further in view of **Hansson et al (US 6,038,223)**.

Regarding claims 10 and 11, as applied to claims 7 and 8, the combination of Bedekar and Sebire further discloses wherein a check is made on the number of packet data channels allocated to the subscriber, **[Sebire: Col 13, 48 – 51]**

for a not necessarily true subset of all combinations of contiguous (sequential) packet data channels which correspond to the number of packet data channels allocated, **[Sebire: Abstract ,1 – 11]**

However, the combination of Bedekar and Sebire fail to specifically disclose that the allocation is investigated for the subscriber and the value to all subscribers is determined, and that the number of contiguous (sequential) packet

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data channels allocated to the subscriber is set to the number of contiguous (sequential) packet data channels that maximizes the value to all subscribers.

In related prior art, Hansson specifically discloses that the allocation is investigated for the subscriber and the value to all subscribers is determined, **[Hansson: Col 8, 2 – 6]** and that the number of contiguous (sequential) packet data channels allocated to the subscriber is set to the number of contiguous (sequential) packet data channels that maximizes the value to all subscribers.

**[Hansson: Col 8, 15 – 17]**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Bedekar and Sebire to include the method of determining the number of packet data channels allocated to a subscriber and the method of assigning a set number of packet data channels in order to maximize the value to subscribers as taught by Hansson in order to provide adequate throughput and Quality of Service.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

**Cloutier et al. US 6,754,189**

7. Any response to this Office Action should be **faxed** to (571) 273-8300 or **mailed to:**

Commissioner for Patents ,  
P.O. Box 1450  
Alexandria, VA 22313-1450



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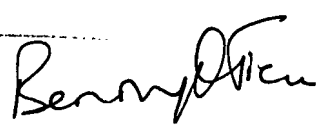
**Hand-delivered responses should be brought to**  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yeshorohan K. Mandadi whose telephone number is (571) 270-1658. The examiner can normally be reached on M-T(8am-5pm) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571) 272 - 7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Yeshorohan Mandadi  
AU 2609

  
BENNY Q. TIEU  
SPE/TRAINER